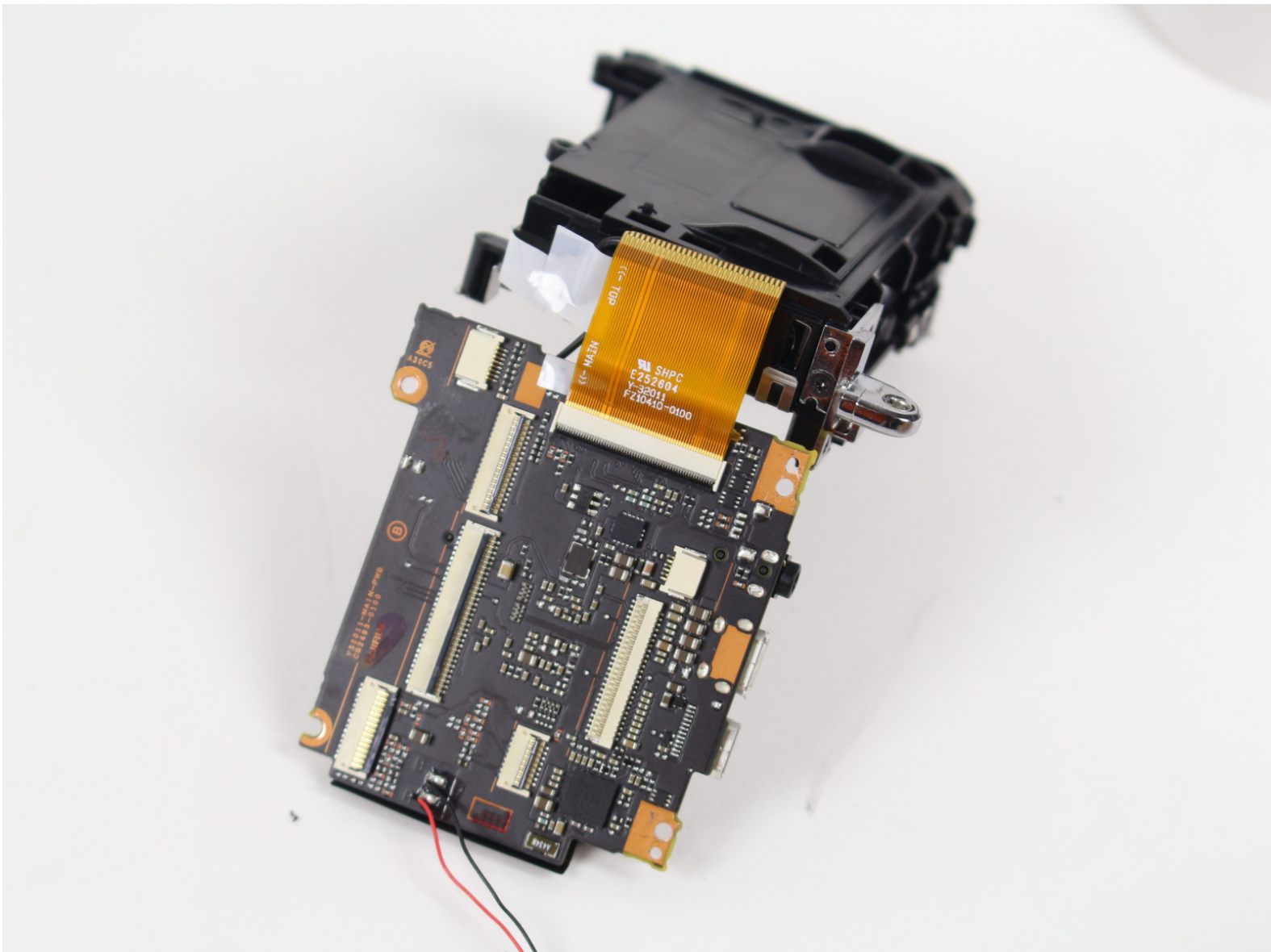




Fujifilm X100T Motherboard Replacement

This guide will show the user how to replace the motherboard of the Fujifilm X100T.

Written By: Zane Ali



INTRODUCTION

Follow these steps to replace the motherboard. The motherboard should only be replaced after other troubleshooting steps have been attempted.

Step 1 — Battery



- Slide the small black tab on the bottom of the camera to the left to unlock the battery cover.

Step 2




- Push the orange tab up to release the battery.
 - Slide the battery out of the camera.
- i** Invert the camera to slide out the battery more easily.

Step 3 — Lens



- Beginning in one of the corners, use a spudger to pry the leather casing off of the camera.

 When working with electronics, it's important to choose a tool that's ESD-safe to avoid accidental damage to the device. The metal spudger is great when you need serious prying power, but the regular black nylon spudger or a plastic opening tool should be used whenever possible.

Step 4



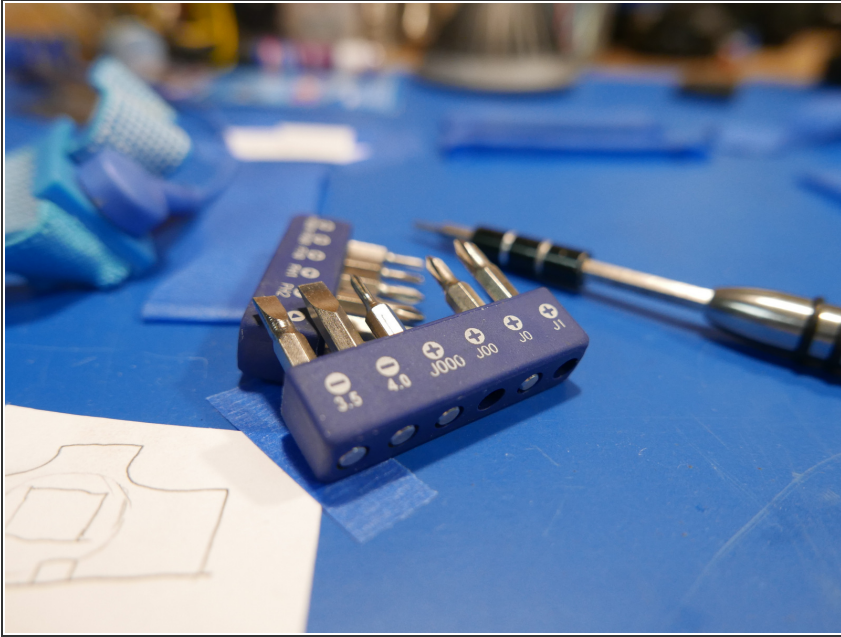
- Carefully and slowly peel the leatherette skin off of the camera by hand.

Step 5



- Locate the six 4.0 mm screws on the bottom of the camera.
- Use a JIS#00 driver to remove these screws.

Step 6



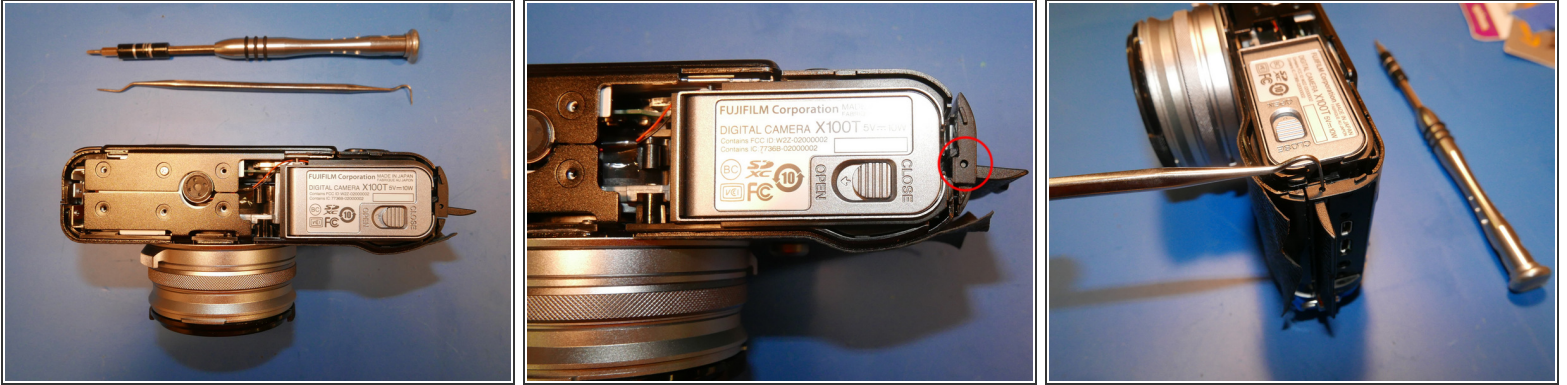
- This is a camera produced by a Japanese camera manufacturer. The Japanese camera industry loves using [JIS](#) (Japanese Industrial Standard) screws.
- Don't be tempted by your Phillips screw driver collection. Although PH#00 will interchange with JIS#00, it is not a perfect fit. Using Phillips will cause more wear on the head of the JIS screws and cause the screws to prematurely strip.
- Have both JIS#00 and JIS#000 screw drivers available for this teardown. Luckily, both bits are included in the [ifixit 64bit kit](#).

Step 7



- Remove the bottom plate and the tripod mount by lifting them using your hands.
- The tripod mount is keyed and fits into a series of pegs on the back side of the bottom plate.

Step 8



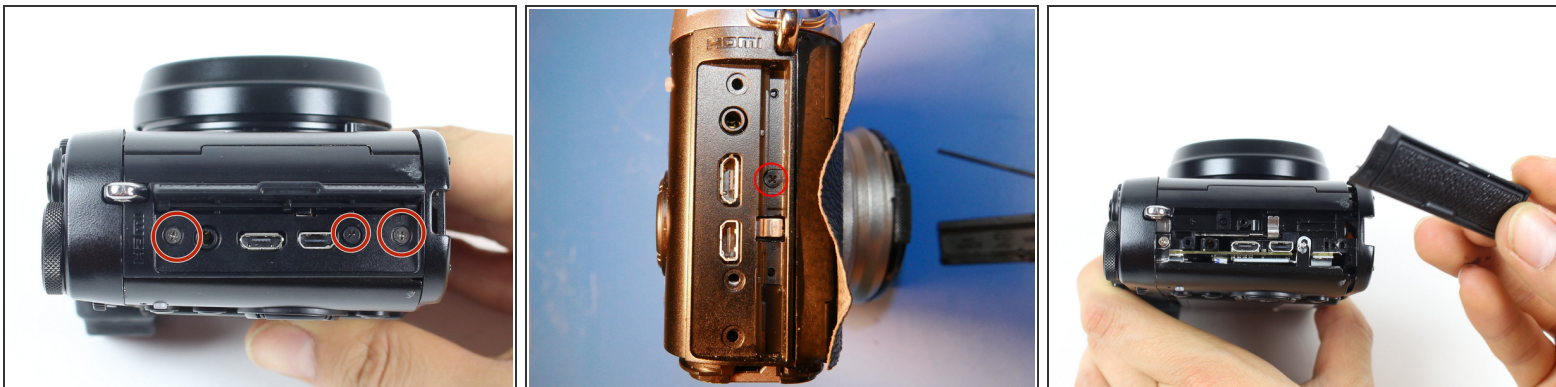
- Get your picks ready!
- To get any deeper into this camera, the right-hand port cover assembly must be removed first. Once this is removed, you will have access to the screws that secure the other components.
- There's a tiny hole toward the bottom right of the battery compartment. Using the pick tool, press into that hole.
- A plastic rod will release. That plastic rod is the axis the hinge rotates about.

Step 9



- Fuji! What did we tell you about hiding screws behind closed doors! That's pretty under the table Fuji. Don't do it again. Promise?
- The devil's in the details with this camera. Slide the port cover off the hinge rod.
- Using a pair of pliers, pull the rod out of the top plate of the camera. Now you'll finally have access to all the screws that need to be removed.

Step 10



- Remove the three 5.0 mm screws by the micro-USB, micro-HDMI and remote ports.
- Remove the screw hidden behind the port cover hinge.
- The port cover assembly should come off with ease. If it is stuck, try prying with plastic shims.

Step 11



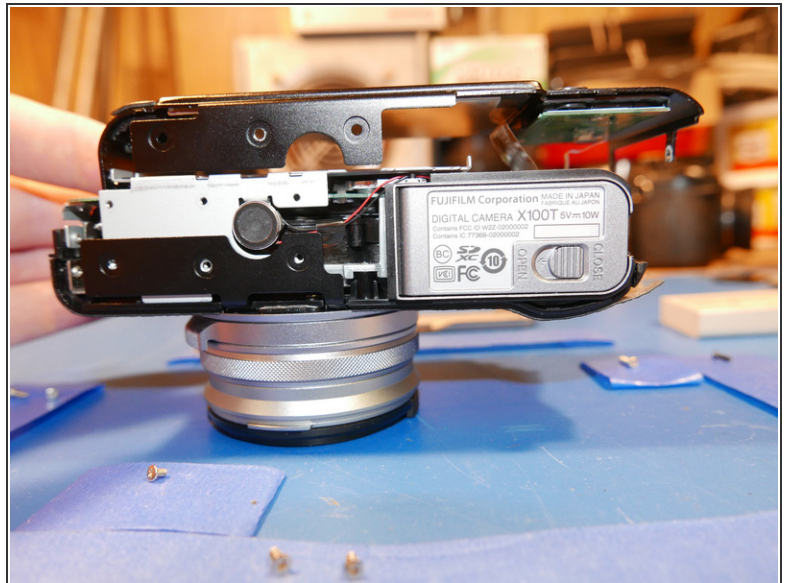
- Remove the two 6.0 mm screws beneath the port cover assembly.

Step 12



- Remove the four 5.0 mm screws on the side of the camera that is opposite to the battery.

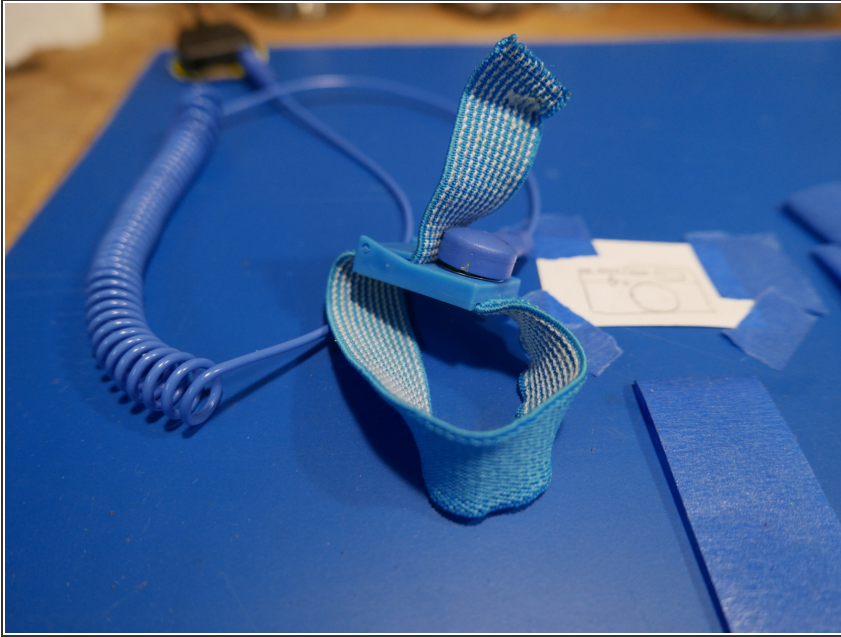
Step 13



- Remove the two 2.5 mm screws on the bottom face of the camera.

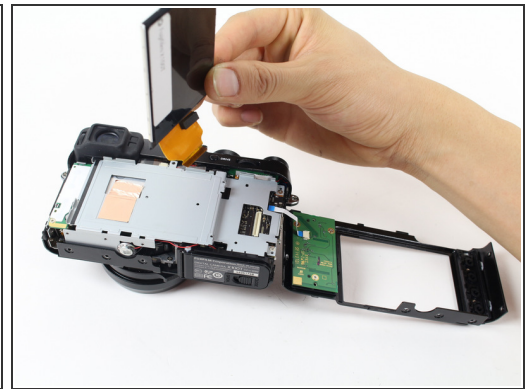
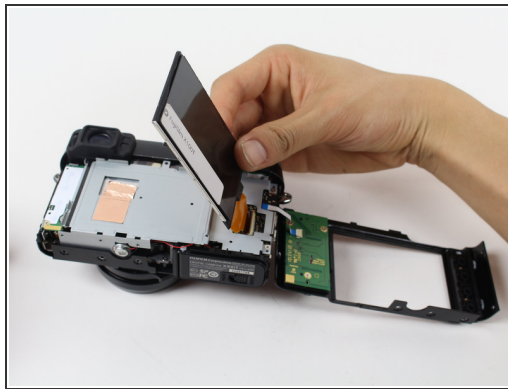
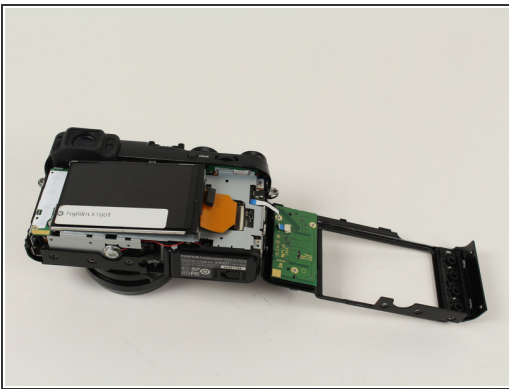
i The rear LCD & button assembly should now pivot up and to the right, exposing the LCD & button ribbon cables.

Step 14



- Once the electronics are exposed, it is highly recommended that you remain ESD safe. ESD can fry your precious electronics, and pass thousands of volts through components only rated for a few V DC. ESD can sure ruin your day if you are not careful.
- Use an ESD mat and wrist strap, and make sure you are grounded for the remaining of the teardown. Make sure your ESD mat is connected to the ground of a nearby outlet, and make sure your house actually has a ground. Consult an electrician if you are unsure.

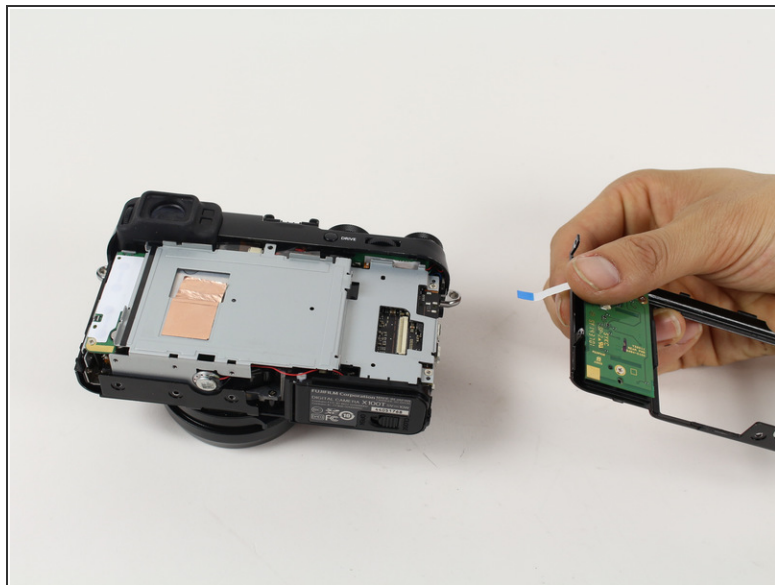
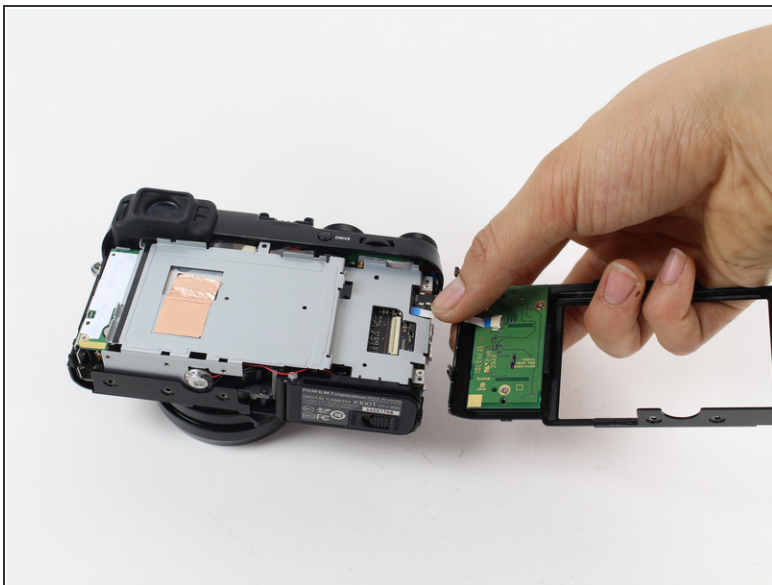
Step 15



- Remove the orange ribbon cable by opening up the ZIF connector with a plastic prying tool or toothpick.

 This separates the LCD from the main board.

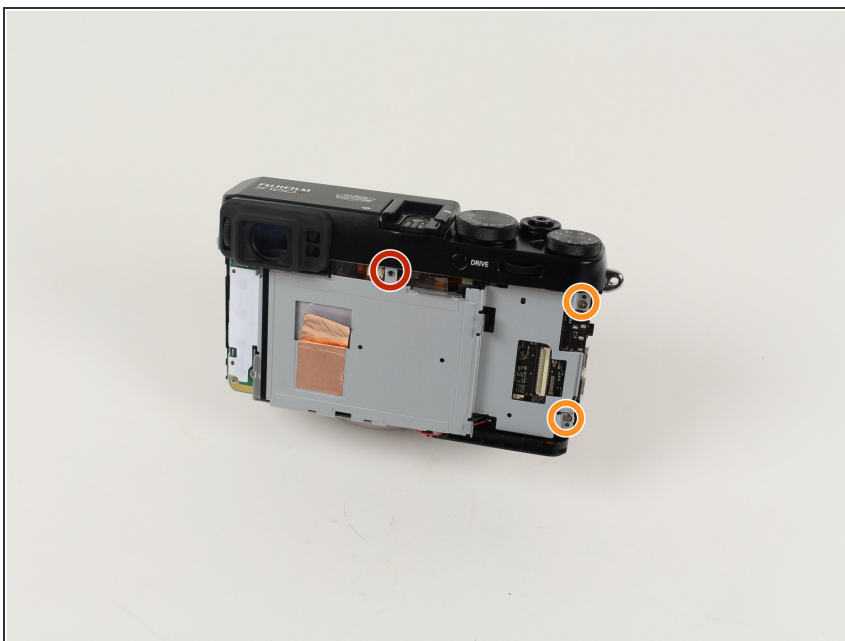
Step 16



- Remove the white/blue ribbon cable from the motherboard by gently pulling with your hands.

i The LCD and button assembly should now be fully detached.

Step 17



- Remove the 2.5 mm screw in the center, above the removed LCD screen.
- Remove the two 4.0 mm screws on the right.

Step 18



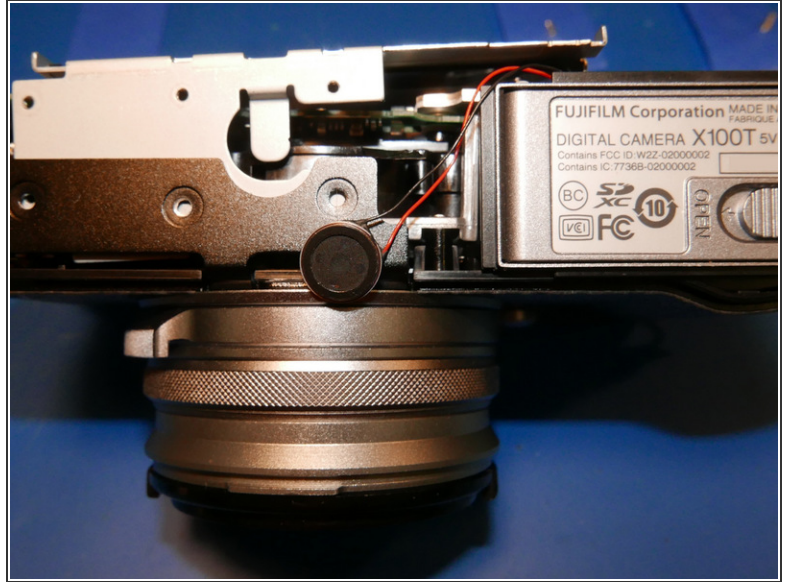
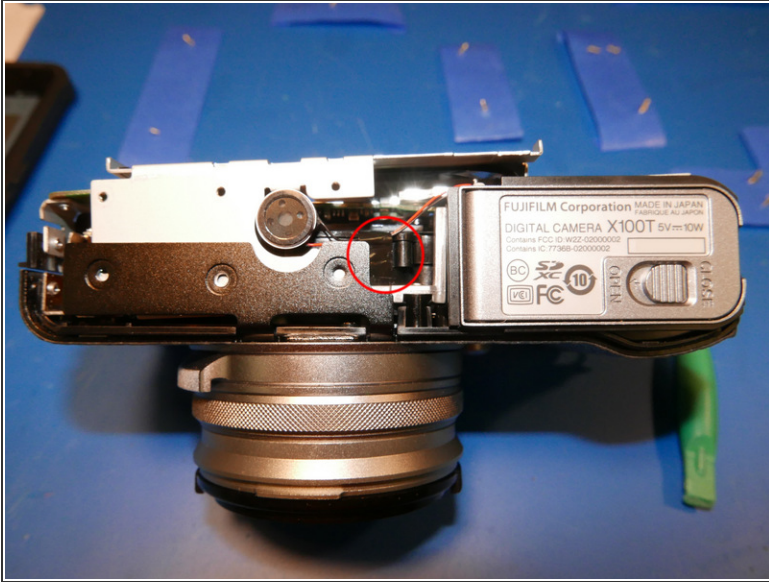
- Remove the two 4.5 mm screws on the side of the camera opposite of the battery.

Step 19



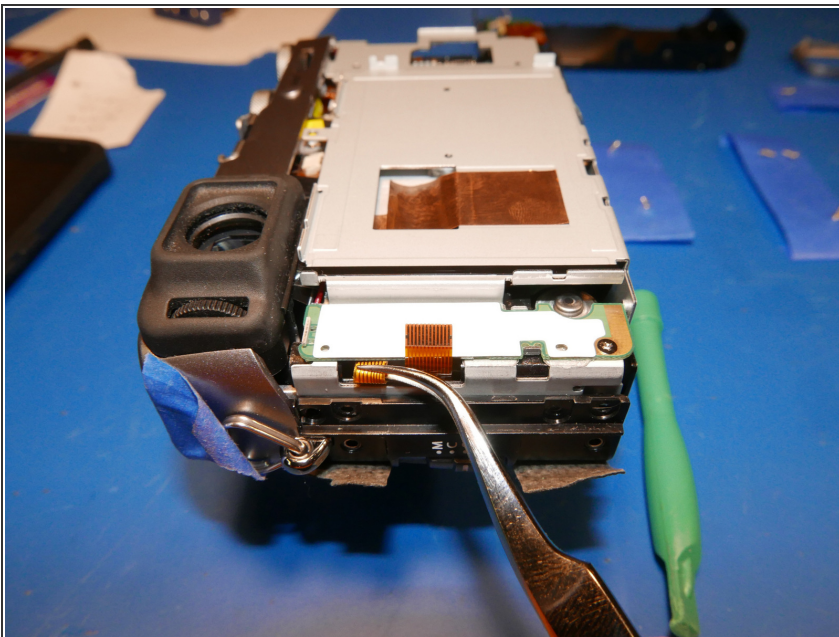
- Peel off the copper tape connecting the frame to the camera.
- ⓘ This allows for ground continuity and partial heat dissipation for inner components.

Step 20



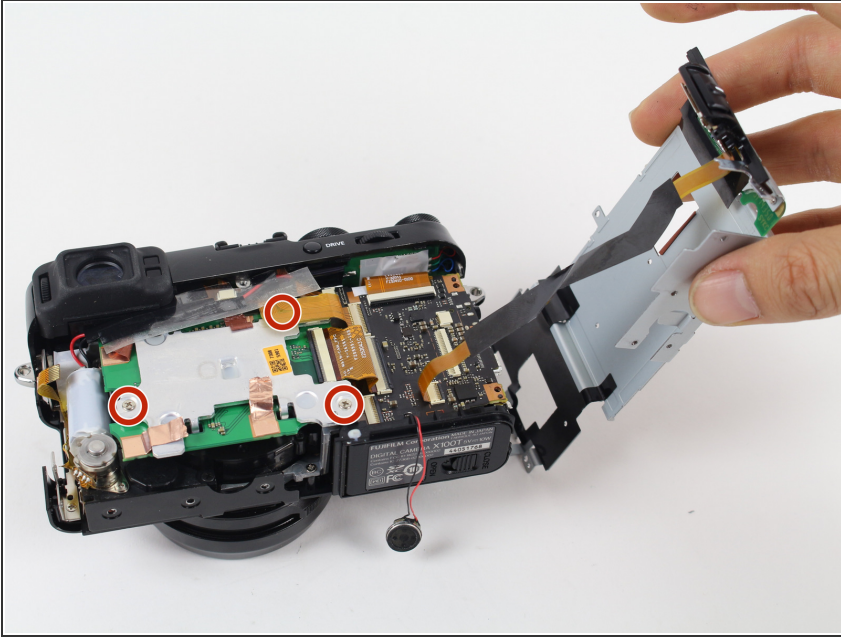
- Remove the adhesive tape holding the speaker.
- The speaker is held into place by double sided tape. Pull it off the steel frame and move it toward the bottom of the camera
- ⓘ This protects the speaker wires from getting clipped by the removal of the steel frame.

Step 21



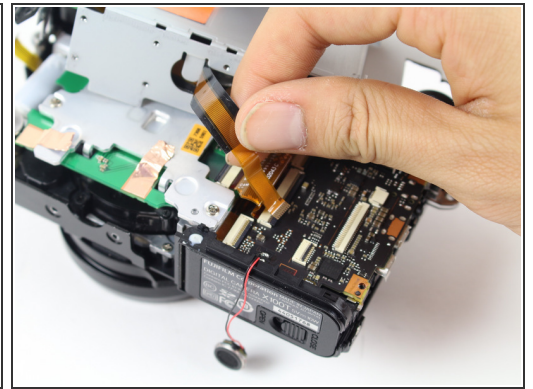
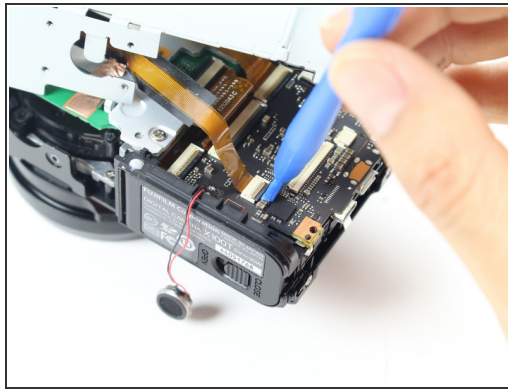
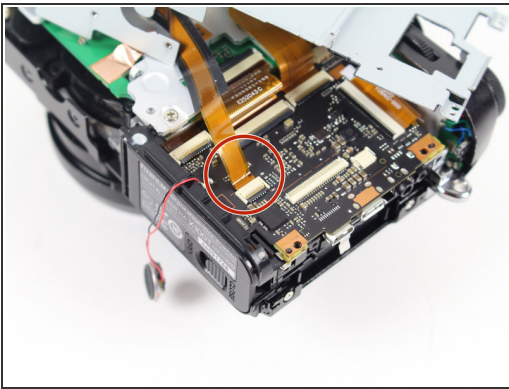
- Remove these two ribbon cables so they don't get cut or damaged when removing the entire steel frame.
- ⓘ Use a pair of tweezers or small, blunt object to remove these ribbon cables. They are in a tight location so have patience and be gentle

Step 22



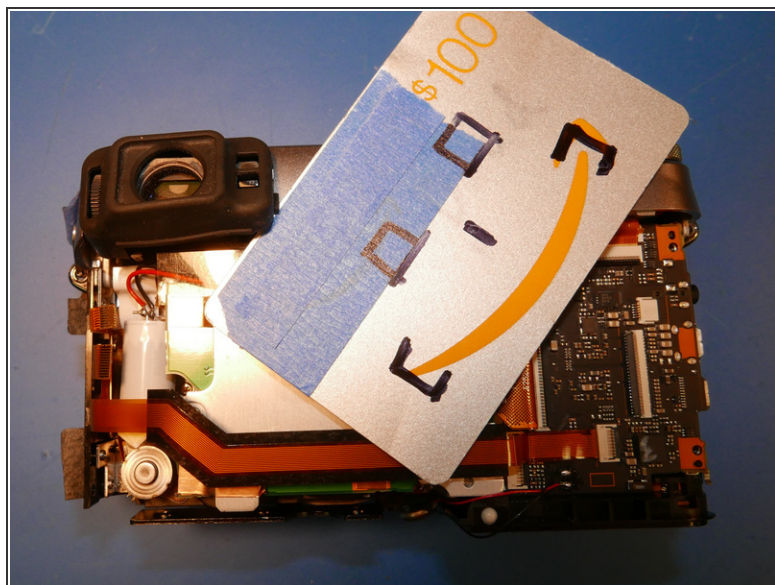
- Fold back the steel frame by lifting it off and gently pulling it to the side using your hand.
- ⚠ Be careful not to detach the frame from the camera.
- Remove the three 4.2 mm screws on the green chip.

Step 23



- Locate the orange ribbon cable on the side of the camera that has the battery slot.
- Remove the ribbon cable from the ZIF socket using a plastic opening tool.
- Remove the ribbon by lifting it off with your hands.

Step 24



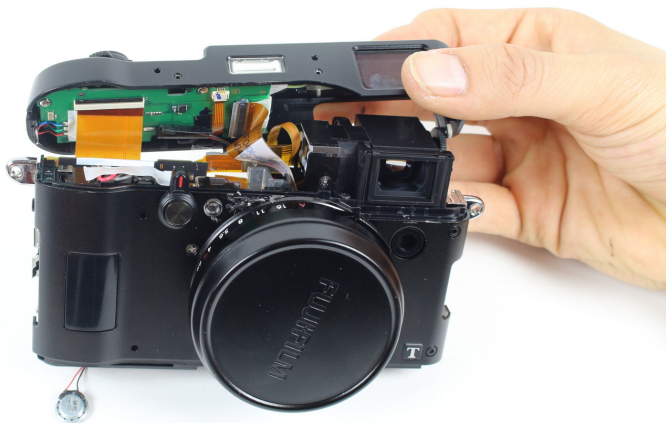
- Remove the rubber eyepiece guard by lifting it off with your hands.
 - If the rubber eyepiece is being stubborn, an old giftcard won't mind :D
- i** Remember, your [Mohs](#) hardness scale! This camera uses metalized plastic extensively.

Step 25



- Remove the two 4.0 mm screws from the front of the camera. These are most likely T1 torx screws.
- I can't stress enough how tiny these screws are. Pencil point sized.
- ⓘ Fuji, screws are a thing of beauty. Why are you trying to hide them?
- The closest bit in the ifixit kit is the star shaped #2 screw head.
- ⚠ Using the wrong bit will strip the Torx screw head, so keep that in mind.

Step 26



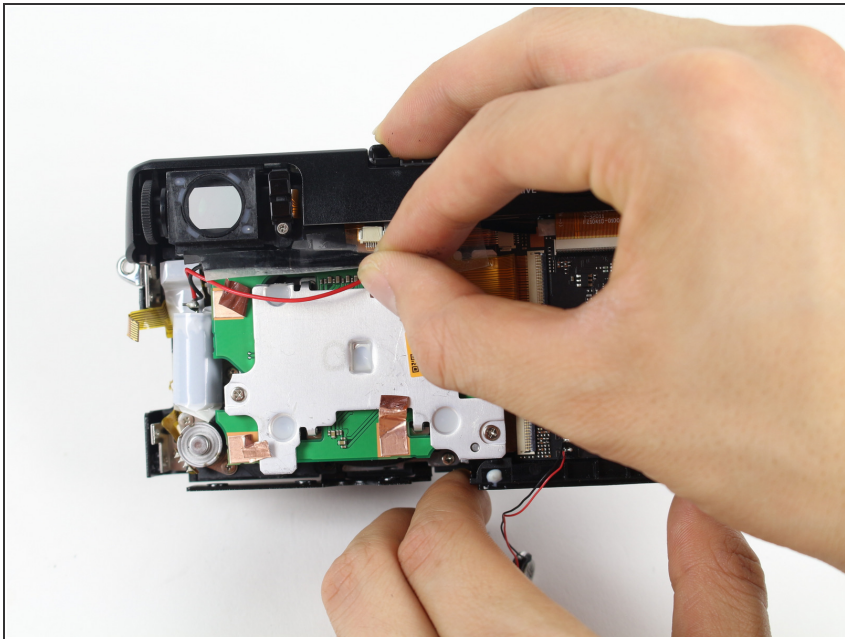
- Remove the top frame by lifting it off and pulling it towards the backside of the camera.

Step 27



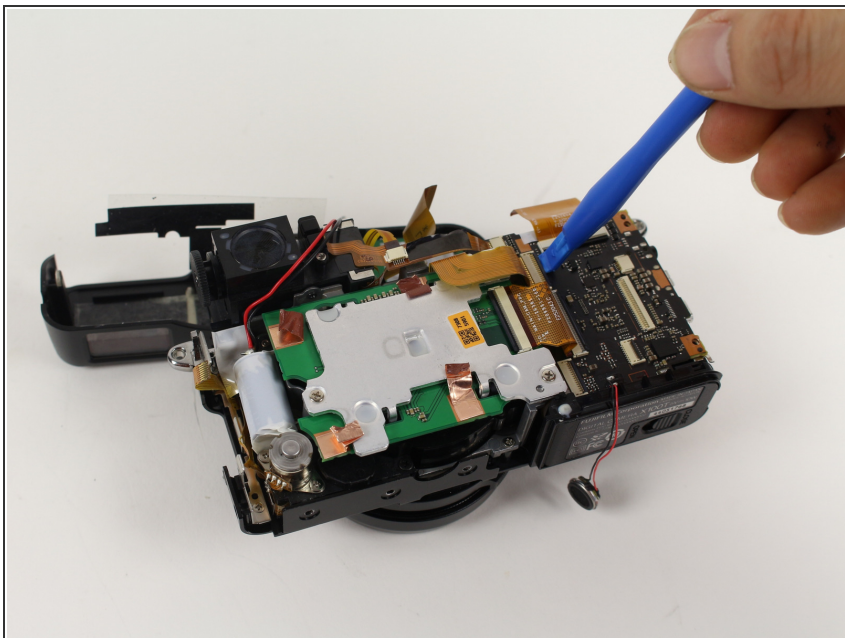
- Use a plastic opening tool to detach the two ribbon cables from the top frame.

Step 28



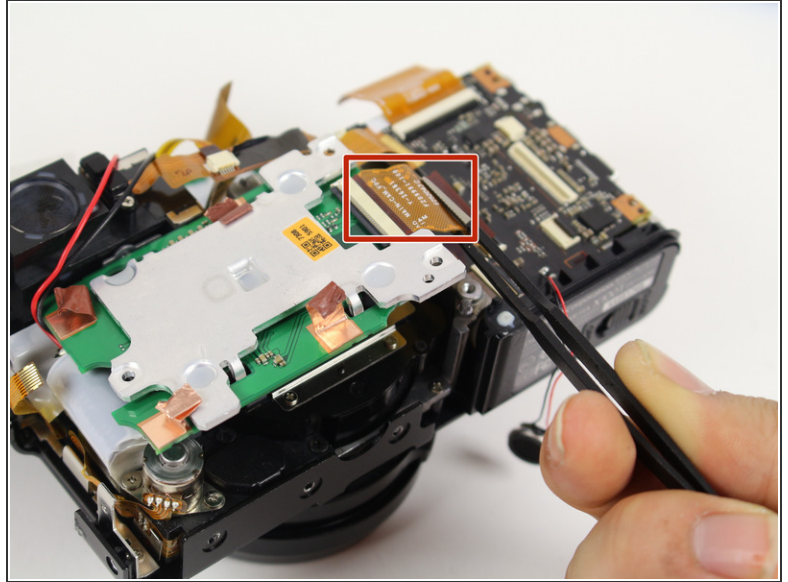
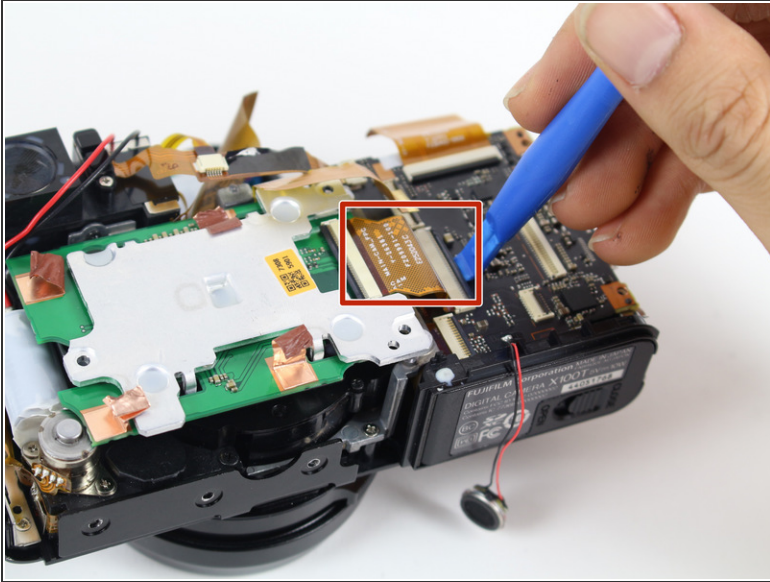
- Locate the adhesive connecting the black and red wires above the green board.
- Remove the adhesive by gently pulling it off with your hand.
- Remove the copper tape that grounds the sensor heatsink to the sensor PCB.

Step 29



- Use a plastic opening tool to pry off the ribbon located next to the top-right of the green sensor board.

Step 30

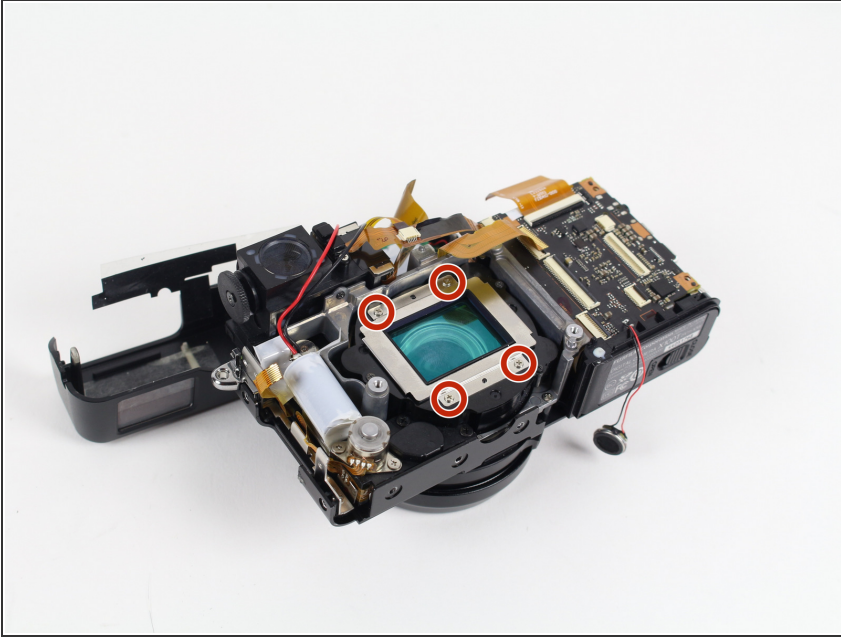


- Use a plastic opening tool and metal tweezers to lift up the ribbon located next to the center-right section of the green board.

⚠ Going any further into the camera is guaranteed to destroy the calibration of the sensor box in the camera. The plane of the sensor is calibrated to the plane of the lens elements or lens mount. Adjusting the tension on any sensor box mount screw makes the sensor and elements out of orthogonal alignment.

- Remove the CMOS sensor aluminum heatsink by lifting it up with your hands. The sensor, PCB and heatsink are integrated into one unit.
- i** With the sensor assembly removed, you should now be able to see the silver lens cover beneath.

Step 31

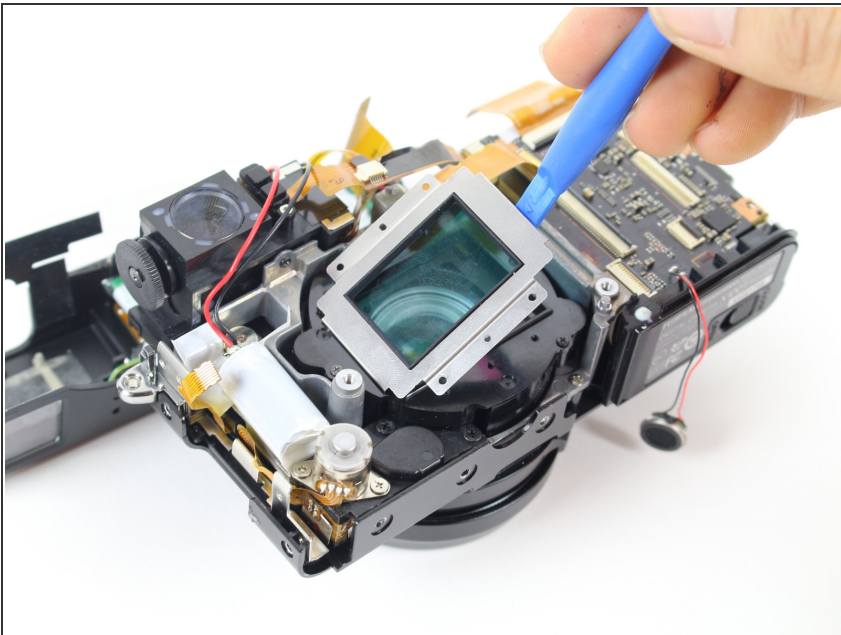


- You should be wearing nitrile gloves when working with lens assemblies. Oils from fingerprints leave marks on the lens elements and cause major headaches during reassembly.

⚠ If you left fingerprints on a lens, you want to identify if it is plastic or glass and clean with the appropriate cleaning agent. If it is glass, use reagent grade Isopropyl alcohol + lens wipes. If plastic use a plastic friendly alcohol or cleaner. Some clear plastics become opaque with Isopropyl alcohol.

- Remove the four 3.2 mm screws on the silver lens cover.

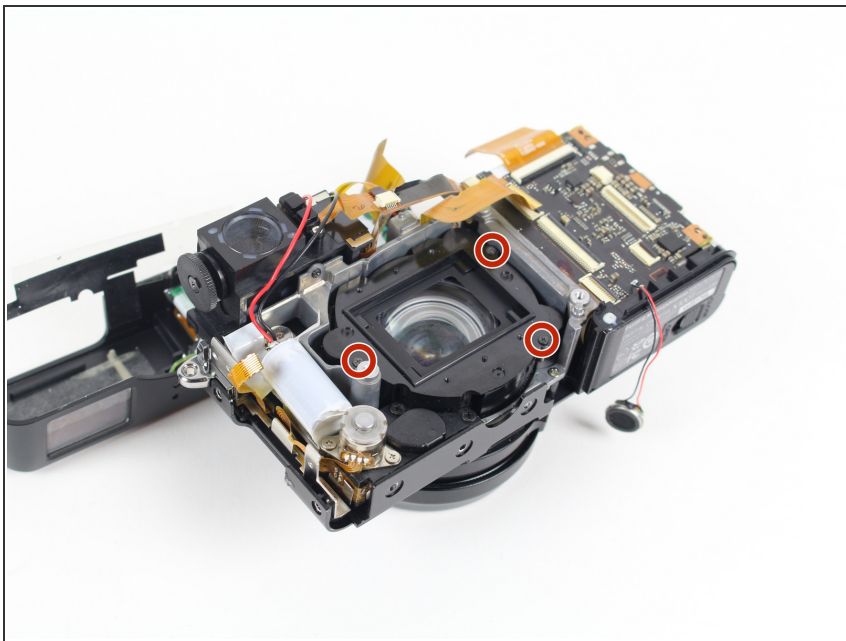
Step 32



- Use a plastic opening tool to lift up the silver lens cover.

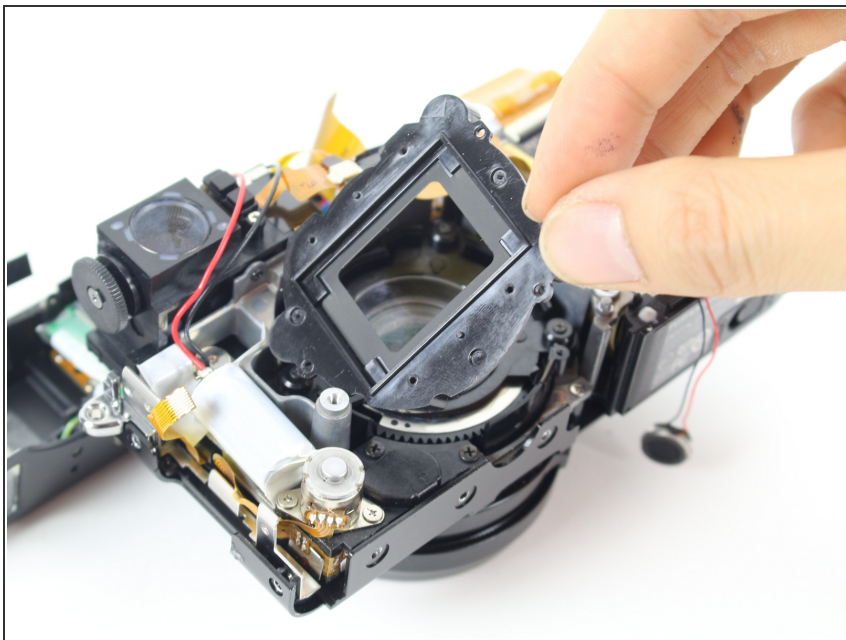
ⓘ You should now be able to see the black lens cover underneath.

Step 33



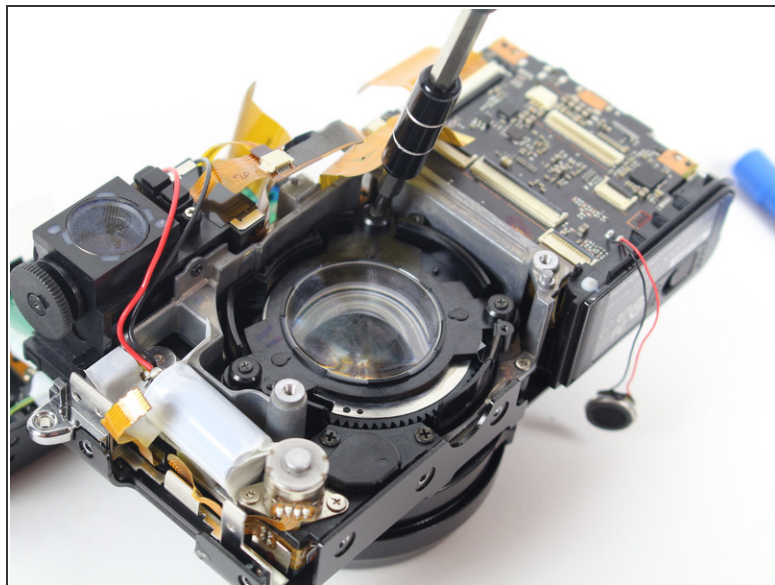
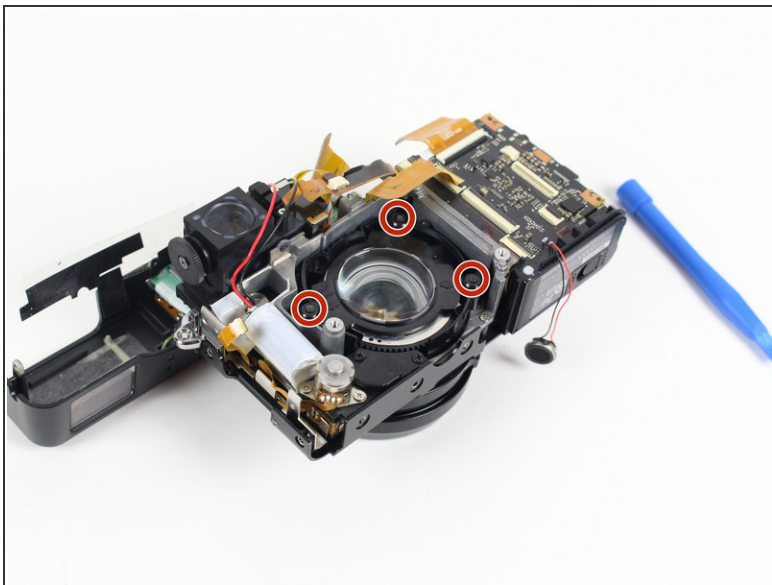
- Remove the three 3.5 mm screws on the black lens cover.

Step 34



- Lift up the black lens cover with your hands.
- ⓘ You should now be able to see the spring-loaded lens.

Step 35



- Remove the three 3.5 mm screws on the spring-loaded cover.

Step 36



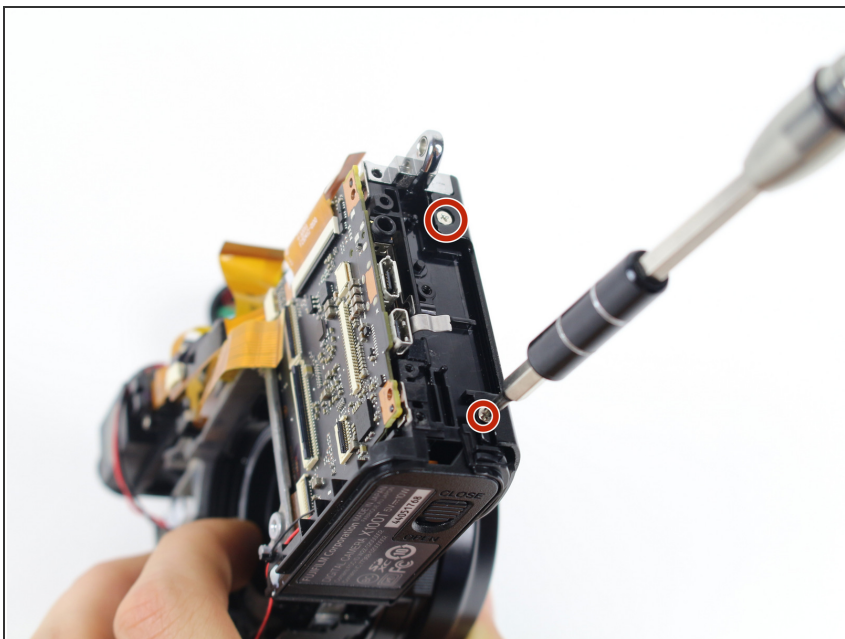
- Remove the spring and the lens by gently lifting both the components upwards.

Step 37 — Motherboard



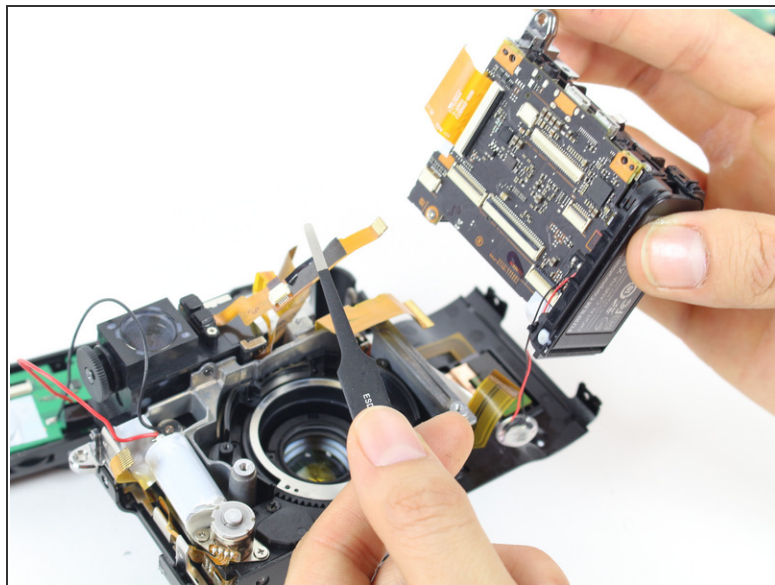
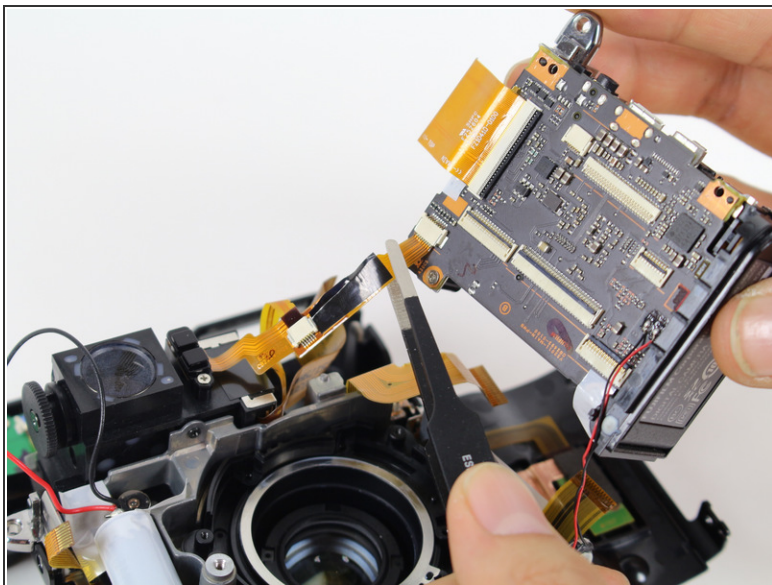
- Once the lens has been taken off, flip the camera over and unscrew the two 4.0 mm screws on the front of the camera, next to the lens cover.

Step 38



- Remove the two 4.0 mm screws located on the side of the camera.

Step 39



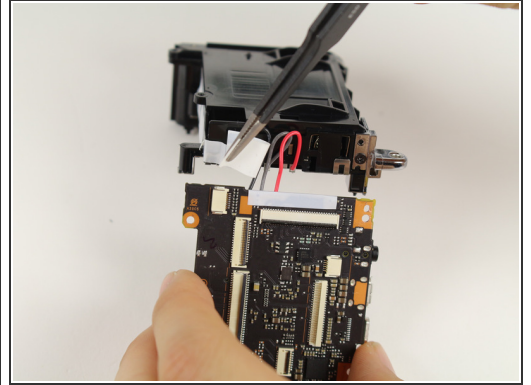
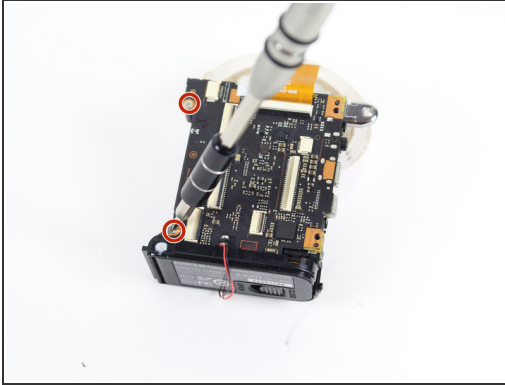
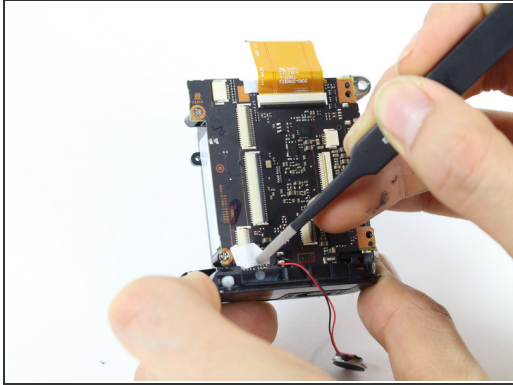
- Slowly pull the now unscrewed motherboard off of the camera

⚠ Be careful not to tear the orange ribbon when pulling it apart.

- Using the metal tweezers, pull apart the orange ribbon from the motherboard.

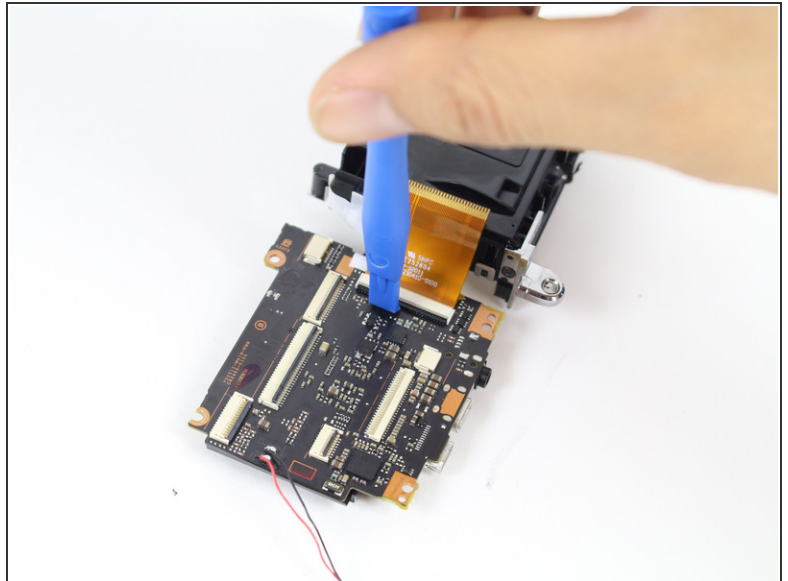
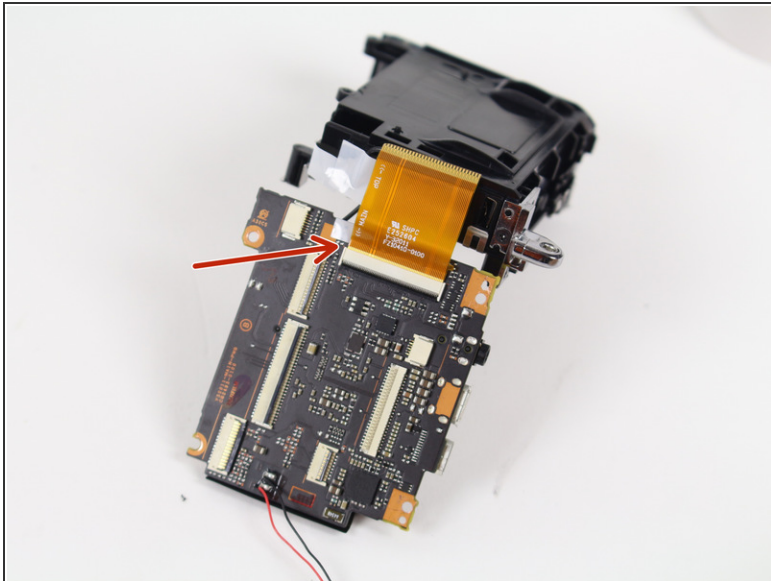
ⓘ The motherboard is connected to the battery.

Step 40



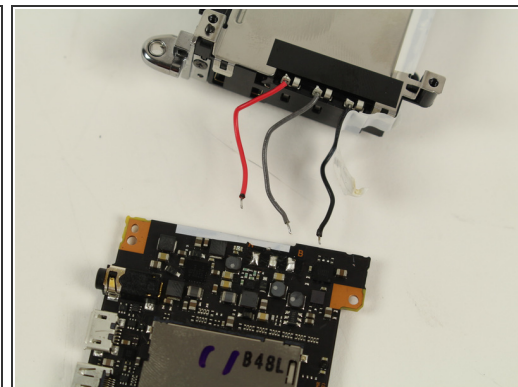
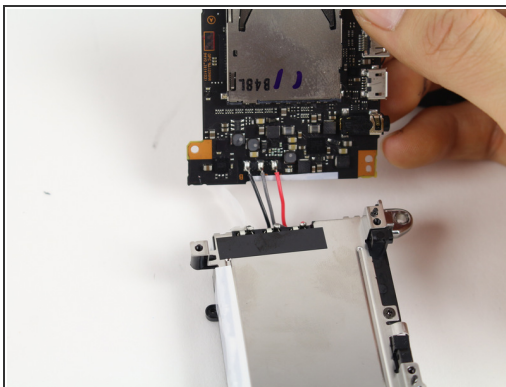
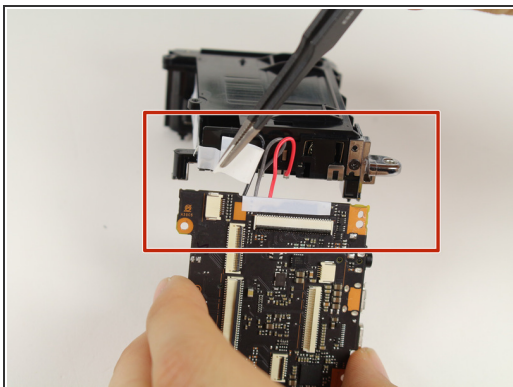
- Using the precision tweezers, remove the white strip from the corner of the motherboard.
- Remove the two 4.0 mm screws from the top left and the bottom left.
- After the screws are removed, carefully detach the motherboard from the battery case by carefully separating the two parts.

Step 41



- Use the plastic opening tool to remove the orange ribbon on the motherboard by wedging the tool under the ribbons black tab, and carefully prying upwards.

Step 42



i NOTE: The next step involves soldering. Refer to this iFixit Guide on soldering [How To Solder and Desolder Connections](#) .

- Desolder the wires connecting the motherboard and battery case.

i You are now left with a standalone motherboard.

To reassemble your device, follow these instructions in reverse order.

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